

Perfect Depression Care Henry Ford Health Service

Articles

Pursuing Perfect Depression Care

From Psychiatric Services, ps.psychiatryonline.org, October 2006, Vol. 57, No. 10.

Building a System of Perfect Depression Care in Behavioral Health

From The Joint Commission Journal on Quality and Patient Safety, April 2007, Vol. 33, No. 4.

Depression Care Effort Brings Dramatic Drop in Large HMO Population's Suicide Rate

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Pursuing Perfect Depression Care

Perfect Depression Program, Henry Ford Health System, Detroit

Can suicide be eliminated? Doing so is the goal of the Perfect Depression Care program, initiated by the Department of Psychiatry at the Henry Ford Health System. Using a framework proposed by the Institute of Medicine to dramatically improve health care, the team set out to examine its department's existing practices and develop new systems of care. To encourage high-quality care for chronic illnesses, the new system addresses the community, the health system, patient self-management support, delivery system design, decision support, and clinical information systems. A key improvement from this model was a new evidence-based approach to suicide prevention, which consists of a three-tiered system of care based on an individualized and continuous risk assessment of each patient.

As a result of these innovations, the Henry Ford Department of Psychiatry has reduced the suicide rate among its patients by 75 percent, to 22 per 100,000 patients, compared with the expected rate in the literature of 1,000 per 100,000. This success has been sustained in each follow-up year since the program's inception in 2001, and the approach used has become a model for new programs within the Henry Ford Health System and across the country.

In recognition of its success in reengineering depression care and significantly reducing suicide rates, the Perfect Depression Program of the Henry Ford Health System was selected to receive APA's Gold Achievement Award in the category of academic or institutionally based programs for 2006. The winning program in the category of community-based programs is described on page 1521. Each Gold Award winner will receive a plaque and a \$10,000 prize, made possible by a grant from Pfizer, Inc., on October 5 at the Institute on Psychiatric Services in New York City.

The challenge

Annually, depression affects about 10 percent of adults in the United States. The leading cause of disability in developed countries, depression results in substantial medical care expenditures, lost productivity, and absenteeism. Untreated or poorly treated, depression can be deadly—each year up to 10 percent of patients with major depression die from suicide.

In its 2001 report *Crossing the Quality Chasm: A New Health System for the 21st Century*, the Institute of Medicine identified depression as a priority condition for immediate national attention. That same year the Robert Wood Johnson Foundation issued a challenge to American health care leaders to “pursue perfect care” by embracing the Institute of Medicine's framework as an approach to program redesign.

The Department of Psychiatry at the Henry Ford Health System accepted the foundation's challenge, choosing as its overall goal the pursuit of a system of perfect care for persons with depression. Through a competitive process the program won funding from the foundation, and in 2002 the Perfect Depression Care initiative began its start-up phase.

Goal: no suicides

The overall goal of the initiative was to eliminate suicide. More broadly, the aim of the program was to completely redesign depression care delivery to achieve breakthrough improvement in quality and safety by using the structure articulated in the *Quality Chasm* report. The redesign would focus on six aims: effectiveness, safety, patient centeredness, timeliness, efficiency, and equity among patients. The program developed concrete measures to assess progress on each of these aims. For example, effectiveness in eliminating suicides would be measured in terms of the number per 100,000 network members. Patients' satisfaction with

remaining aims would be measured with a standardized national survey.

The targeted sample was all patients with depression and other mood disorders (about half the clinical volume) being cared for by the Henry Ford Department of Psychiatry, a large regional integrated delivery system serving southeastern Michigan and the entire Midwest. The department owns and operates a comprehensive behavioral health care delivery system that includes ten outpatient centers, a 100-bed psychiatric hospital, a 64-bed residential and outpatient substance abuse program, and numerous specialty care and service programs, all staffed by a workforce of 515 employees. The department receives approximately 70,000 outpatient visits and provides 46,000 inpatient days of care annually.

Blues Busters team

To launch the initiative, the department chair formed and led a 15-member team to set the vision and strategic goals for the Perfect Depression Care initiative. Dubbed the Blues Busters, the team conceptualized, planned, and launched the initiative and provided initial leadership direction and oversight during implementation. The team included the chief operations officer, medical directors of inpatient and outpatient services, director of quality management, and other key clinicians and managers, such as the inpatient nursing leader, several key physicians, therapists, and clinical managers.

Perhaps the largest obstacle to implementing the Perfect Depression Care initiative was the team's acceptance of “no suicides” as the goal. Some Blues Busters eagerly embraced the goal. Others challenged it, viewing it as unrealistic for a network of 200,000 members, most of whom were outpatients. The debate was finally resolved when the question was asked, “If zero is not the right number of suicides, then what number is? One? Four?”

Forty?” This debate was a milestone in the initiative. The team united in its commitment to pursuing perfection. These critical first steps gave the project an identity within the department and the larger health system.

The department's board of trustees provided leadership and support to the team by reviewing progress quarterly, encouraging leaders and staff, and recognizing accomplishments in written communications.

Pursuing perfection

Strategy

The approach to achieving perfect depression care included six major tactics: commit to “perfection” (zero care processes defects, or zero suicides) as a goal; map the current care processes and develop a clear vision of how patient care must change; partner with patients to ensure their voice in care redesign; conceptualize, design, and test strategies for improvement in four areas identified in the mapping of current care—patient partnership, clinical practice, access to care, and information systems; implement relevant measures of care quality, continually assess progress, and adjust the plan as needed; and communicate the results and celebrate the victories.

Key activities

Multiple changes were made from 2001 to 2005 to redesign depression care. First, the team envisioned how each patient's care would need to change to achieve optimal care that provided a continuous healing relationship. The team operated on the principle that perfect depression care must be barrier free and consistently provide timely and accurate recognition of suicide risk.

After carefully examining the existing care processes and benchmarking processes in exemplary organizations across the country, the team improved care in four principal areas.

Partnership with patients. A consumer advisory panel was established to help redesign the treatment planning process. With the panel's input, the new plan involves each patient as an active partner in treatment. At each key juncture of program development, the team held focus groups with patients and families to solicit feedback. The team also developed a survey to

measure patient satisfaction.

Clinical care. A key change was the development and implementation of a suicide prevention protocol across outpatient and inpatient facilities. This protocol is the core of revised evidence-based depression care guidelines. The protocol stratifies patients on the basis of risk—acute, moderate, and low—and requires specific actions within specific time frames for each risk level. Such actions include assessing whether the patient has access to weapons and, if so, developing a plan for removal; conducting a psychiatric evaluation, providing individual and group psychotherapy appropriate to the patient, involving the patient's family, and providing additional resources to the patient and family. The risk assessment looks beyond suicidal ideation for predictors of acute and chronic suicidal risk. Mood disorders, as well as severe anxiety, severe insomnia, global insomnia, and severe anhedonia, have been found in recent literature to be predictors of suicide risk, so all are considered in the risk assessment.

The depression care guidelines were revised to ensure a systematic and evidenced-based approach to coordinating an array of somatic and psychotherapeutic treatments, including psychotherapy, psychopharmacology, and brain stimulation techniques, such as electroconvulsive therapy. The Department of Psychiatry also partnered with the Beck Institute of Philadelphia to establish and maintain department-wide competency in cognitive-behavioral therapy and provided training for 30 clinicians to achieve certification. Also, the department implemented evidence-based clinical protocols to reduce the risk of falls and medication errors in the inpatient facilities.

Access. Three innovations to improve access were implemented: drop-in group medication appointments, advanced (same-day) access, and e-mail “visits.” Each outpatient site offers one or more 90-minute drop-in group appointments weekly, led by a psychiatrist and a social worker. This approach provides temporary additional access and group support on short notice. A secure e-mail system was established for patients who prefer to use it for some interactions with their behavioral health care providers. Also, several

stand-alone behavioral health outpatient clinics were physically reintegrated into the medical group's outpatient clinic buildings to ease access and continuity of care.

Information flow. Several technological changes improved the flow of information within the health care system and to patients. First, electronic medical records were updated to comply with confidentiality policies and to enable sharing of information between health care sites. For example, complete behavioral health information (including suicide risk) is now immediately available to behavioral health clinicians at any site at which the patient is seen.

Second, a comprehensive and secure “Living With Depression” Web site was developed for patients and family members. In addition to providing treatment information, the Web site features video clips of evidence-based information, “ask the expert” forums, and secure chat rooms for information and support. The secure e-mail communication system was established within this context.

Third, an Intranet was created for the health system to disseminate the depression guidelines to all clinicians and to provide access to a patient registry and other electronic tools to improve the quality and efficiency of care.

Funding the initiative

The Perfect Depression Care initiative was launched at a time of financial challenge for the Henry Ford Health System. One-time financial support was required in three areas: project management support equivalent to one full-time manager for one year, training in cognitive-behavioral therapy for 30 clinicians, and Web site development and the other electronic enhancements. Support was provided by the grant from the Robert Wood Johnson Foundation and by the health system and Department of Psychiatry board of trustees. The trustees raised substantial sums of money to support the development of critical information technology, including the Web site.

Although improving financial performance was not a formal goal of the initiative, the outcome was essential to the long-term viability of the program and of the overall health system. From 2002 to 2004, the gross contribution

(total net revenue minus total direct expenses) was improved by nearly eightfold, mainly by a nearly \$3.5 million reduction in expenses in that period. Expenses were reduced in part through improvements in productivity generated by the Perfect Depression Care protocols. Financial success continues for the program. With additional grants and support from affiliated partners, Perfect Depression Care programs are spreading throughout the state of Michigan and nationally.

Dramatic reduction in suicide

The goal in the Perfect Depression Care initiative was to eliminate suicide, which the program has come very close to achieving. Since implementation of the program, the rate of suicide in the patient population has declined by an impressive 75 percent, from approximately 89 deaths per 100,000 at baseline (2000) to approximately 22 per 100,000 for the follow-up interval of 2002 to 2005 ($p=.007$). This improvement has been sustained during each of the four outcome years. For comparison, although the expected suicide rate in the general population, per U.S. census figures, is 11 deaths per 100,000, the suicide rate among patients with an active mood disorder is estimated at 80 to 90 times the rate of the general population, and the suicide rate among patients with a history of suicide attempts is 100 times the rate of the general population. This dramatic and sustained reduction in suicide rate achieved in the Perfect Depression Care program is unprecedented in both the clinical and quality improvement literature. In fact, in two of the four follow-up years, the

suicide rates dropped to levels seen in the general population.

In addition to the substantially improved suicide rate, the level of patient satisfaction has also greatly improved. The team developed a simple survey for patients to assess their care, which was piloted with the electroconvulsive therapy unit. The percentage of patients completely satisfied with all dimensions of their care increased to over 90 percent, from 55 percent on average during the baseline period. This level of satisfaction has been sustained in the unit for over four years. Although the team attempted to use the survey in the outpatient clinics and inpatient services, recording the data is too cumbersome for large, busy services.

Effective model

The encouraging results of the Perfect Depression Care Initiative are among the first to demonstrate that the *Quality Chasm* report can be a highly effective model for breakthrough quality improvement in mental health care. The successful Perfect Depression Care initiative is the prototype for a comprehensive redesign of behavioral health care across the Department of Psychiatry. Work is under way to perfect the care of persons with anxiety or psychotic disorders, and similar care systems are being developed for violence prevention and medication safety.

The program is not only a model treatment program but also a model of health systems research. An initiative was recently launched to spread perfect depression care to the primary and specialty medical care settings of the health system, in part by reintegrating

behavioral health and medical outpatient clinics and redirecting information flow. The group is also collaborating with the insurance division of the health system to develop a depression care management product designed to provide major employers (in particular, the automotive manufacturers in Detroit) with a system of depression care that will improve employee productivity and lower health care costs. The creative use of information technology has drawn attention and support from Microsoft and the Flinn Foundation. The team is helping the state of Michigan develop and implement evidenced-based guidelines for the care of persons with mood disorders. Finally, the team is consulting with numerous mental health care providers, insurers, and professional organizations throughout the United States to support their efforts to improve their mental health care services.

Summary

In summary, by using the *Quality Chasm* report as a roadmap and by leveraging "pursuing perfection" as a strategic driving force, the Perfect Depression Care program has achieved unprecedented results in reducing suicide and improving the care of persons with depression. This approach is economically viable and readily applicable to other mental health care delivery systems.

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Applications Invited for the 2007 Achievement Awards

The American Psychiatric Association's (APA's) Psychiatric Services Achievement Awards, funded by Pfizer Inc., recognize programs that have made an outstanding contribution to the field of mental health, that provide a model for other programs, and that have overcome significant challenges. The winner of the first prize, or Gold Award, in each of two categories—community-based programs and institutionally sponsored programs—receives a \$10,000 grant. Programs also may be selected to receive a Silver or Bronze Award.

To obtain an application form for the 2007 competition or for additional information, write to Achievement Awards, APA, 1000 Wilson Boulevard, Suite 1825, Arlington, VA 22209-3901; phone: 703-907-8592; or visit www.psych.org/psychpract/awards.cfm.

Codman Awards

Building a System of Perfect Depression Care in Behavioral Health

C. Edward Coffey, M.D.

For the "Blues Busters" of Behavioral Health Services

Behavioral Health Services, a division of the Henry Ford Health System (HFHS; Detroit), provides a full continuum of mental health and substance abuse services through a large integrated delivery system of 2 hospitals, 10 clinics, and more than 500 employees that serves southeastern Michigan and adjacent states. Through its department of psychiatry, Behavioral Health Services is also engaged in a large academic enterprise, which includes numerous education, training, and research programs.

In 2001, the Institute of Medicine (IOM) report, *Crossing the Quality Chasm: A New Health System for the 21st Century*,^{1,2} served as a wake-up call to American health care. While praising the unparalleled advances in medical science in the United States, as well as health care workers' skill, dedication, and self-sacrifice, it indicted the health care delivery system for not translating those strengths into meaningfully better care for each and every patient.

The Chasm Report spotlighted behavioral health care, identifying depression and anxiety disorders on the short list of priority conditions for immediate national attention and improvement. Annually, depression affects about 10% of adults in the United States. The leading cause of disability in developed countries, depression results in substantial medical care expenditures, lost productivity, and absenteeism. Untreated or poorly treated, it can be deadly; each year as many as 10 percent of patients with major depression die from suicide.³

Shortly after publication of the Chasm Report, the Robert Wood Johnson Foundation (RWJF) issued a challenge to American health care leaders to "pursue perfect

Article-at-a-Glance

Background: Depression, a common, serious disorder, may result in suicide in up to 10% of afflicted persons.

Methods: In 2001, the Division of Behavioral Health Services of the Henry Ford Health System (Detroit) launched an initiative to completely redesign depression care delivery using the Six Aims and the Ten Rules from the Institute of Medicine report *Crossing the Quality Chasm*. This "Perfect Depression Care" initiative, whose key goal was the elimination of suicide, entailed performance improvement activities in four domains—partnership with patients, clinical care (planned care model), access, and information flow.

Results: The rate of suicide in the patient population decreased by 75% ($p = .007$), from ~89 per 100,000 at baseline (2000) to ~22 per 100,000 for the four-year follow-up interval (the average rate for 2002–2005).

Discussion: This sustained reduction in suicide rate suggests that the process improvements implemented as part of the Perfect Depression Care initiative substantially improved the care of persons with depression. The initiative is the prototype for a comprehensive redesign of behavioral health care. Work is under way to "perfect" the care of persons with anxiety or psychotic disorders, and similar care systems are being developed for violence prevention and medication safety, with a particular focus on perfecting communication between providers. Pursuing perfection is no longer a project or initiative but a principle driving force embedded in the fabric of our care.

Table 1. Contents Page for the Suicide Prevention Guideline*

Henry Ford Health System Behavioral Health Services Suicide Prevention Guideline

1. What is the Planned Care Model?
 - Background & Definition
 - Planned Care Model for HFBH Perfect Depression Care
2. Decision Support: Evidence-Based Guidelines
 - HFBH Suicide Prevention Guideline
 - Risk Assessment—Key Definitions
 - Protocol to Remove Weapons
 - Family Interventions
 - Handout: “Understanding and Helping Someone Who Is Suicidal”
 - Psychotherapy
3. Delivery of Care Design
4. Patient Self-Management
 - Handout: “If you are thinking about suicide...read this first”
 - HFBH Depression Web site
 - Self-Help Books
5. Community Resources and Support
 - List of Community Support Groups
6. IT Support / Clinical Information Systems
7. Measurement
 - Six Dimensions of Care
 - Risk assessment and outcome measures
 - Patient Satisfaction
 - Ambulatory Chart Audits
8. Guideline Review Schedule
9. Appendix
 - A. Key Articles
 - B. APA Practice Guidelines for the Treatment of Patients with Major Depression

* HFBH, Henry Ford Behavioral Health; IT, information technology; APA, American Psychiatric Association. A full copy of the guideline is available on e-mail request from the author

care” by embracing the IOM framework of the Six Aims (Table 1, above) and then Ten Rules for redesign (for example, care based on continuous healing relationships, customization based on patient needs and values)² as an approach to achieve “perfect” care. We accepted the RWJF challenge, choosing as our overall goal the pursuit of a sys-

tem of perfect care for persons with depression. Through a competitive process, behavioral health services was selected from among approximately 300 applicants as one of 12 demonstration projects (“finalists”) for Phase I of “Pursuing Perfection.” Participation in this national collaborative in 2002 provided our Perfect Depression Care initiative focus, structure, discipline, and visibility in the start-up phase.

Today we can report a large and sustained reduction in suicide that is, to our knowledge, unprecedented in the clinical and quality improvement literature.

Methods

PLANNING

Our Goal—No Suicides! The overarching goal in the Perfect Depression Care initiative was to eliminate suicide. This audacious goal was a key lever in a broader aim: to achieve breakthrough improvement in quality and safety by completely redesigning depression care delivery using the Six Aims and Ten New Rules articulated in the Chasm Report. To communicate our bold vision, we called the initiative “Perfect Depression Care.”

OUR STRATEGY

Our approach to achieving Perfect Depression Care consisted of the following six major tactics:

1. Commit to “perfection” (zero defects) as a goal.
2. Develop a clear vision of how each patient’s care will change.
3. Partner with patients to ensure their voice in care redesign.
4. Conceptualize, design, and test strategies for improvement in four high-leverage domains identified when we mapped our current care processes:
 - Patient partnership
 - Clinical practice (planned care model)
 - Access to care
 - Information systems
5. Implement relevant measures of care quality, continually assess progress, and adjust the plan as needed.
6. Communicate the results, communicate the results, and communicate the results again, and celebrate the victories.

We extensively redesigned depression care, which included the development and implementation of a suicide prevention protocol across both outpatient and inpatient

Table 2. Perfect Depression Care: Key Goals and Indicators*

IOM Aim	Goal	Measure	Data Source
Safety	Eliminate inpatient falls	Inpatient falls/1,000 days of care	Incident reporting system
	Eliminate inpatient medication errors	Inpatient medication errors/1,000 days of care	
Effectiveness	Eliminate suicides	Number of suicides/100,000 network members	Incident reporting system
Patient-centeredness	100% of patients completely satisfied with their care	Overall patient satisfaction	PressGaney survey, Assessment of care survey
Timeliness	100% complete satisfaction	Patient satisfaction with timeliness	Assessment of care survey
Efficiency	100% complete satisfaction	Patient satisfaction with efficiency	Assessment of care survey
Equity	100% complete satisfaction	Patient satisfaction with equity	Assessment of care survey

* The Six IOM (Institute of Medicine) Aims are drawn from Institute of Medicine: *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, D.C.: National Academy Press, 2001.

facilities. This protocol has become a central component of our evidence-based depression care guidelines (Table 1).

PERFECT DEPRESSION CARE AS AN ORGANIZING STRATEGIC PLANNING CONCEPT

We leveraged Perfect Depression Care as a core strategy to drive quality. By using our strategic and operational planning process to target and plan for Perfect Depression Care, we ensured that the initiative was aligned with overall organization priorities, fully integrated into the work of leaders and others across the organization, and subject to ongoing review of progress and “lessons learned.”

IMPLEMENTING THE PERFECT DEPRESSION CARE INITIATIVE

In 2001, the vice president of the Division of Behavioral Health Services [C.E.C.], as leader of the Perfect Depression Care initiative, formed and led a 15-member steering team, which set the initiative’s vision and strategic goals; conceptualized, planned, and launched the initiative; and provided initial leadership direction and oversight. The team consisted of key members of the executive team (chief operations officer, medical directors of inpatient and outpatient services, director of quality management), as well as other key clinicians and managers (for example, inpatient nursing leader, several key physicians, therapists, and clinical managers). When possible, the chair chose members known to be leaders and change

agents; both leadership and front-line caregiver perspectives were represented.

Early on, the team adopted a name and logo (Figure 1, page 196) and after some vigorous discussion, united in a commitment to pursuing perfection. We captured that commitment in a promise we make to our patients. These critical first steps helped unite our Blues Busters team and gave our purpose an identity within the department and the larger health system.

The psychiatry department’s board of trustees, an advisory board composed of 20 volunteer community leaders, also played a key leadership role in Perfect Depression Care. The board and its quality committee reviewed progress quarterly, provided encouragement to leaders and staff, recognized accomplishments in written communications, and undertook major philanthropic efforts to support the initiative, in particular raising substantial sums of money to support the development of critical information technology, including a Depression Care Web site accessible to registered patients.

All psychotherapists were provided training to develop competency in Cognitive Behavior Therapy and the suicide prevention protocol. Nonclinical staff had important roles in practice changes such as access improvements and information systems innovations.

FISCAL AND STAFF RESOURCES

The Perfect Depression Care initiative required one-time financial support in three key areas:

Blues Busters Logo



*Our promise to each and every patient:
"We will work with you to achieve the best possible care, always respecting your individual wants and needs."*

Figure 1. The logo for the Perfect Depression Care initiative is shown.

1. Project management: One full-time equivalent (FTE) of project management support for one year
2. Departmentwide competency in Cognitive Behavior Therapy, as stated above
3. Information systems development: Depression Care Web site (substantially funded by the board of trustees), departmental Intranet, electronic medical record (EMR) enhancements

We received considerable guidance and support from faculty at the Institute for Healthcare Improvement and the RWJF during our participation in "Pursuing Perfection," as well as others (see Acknowledgments).

PERFORMANCE MEASUREMENT

As a participant in Phase I of the Pursuing Perfection initiative in 2001, Behavioral Health Services set goals and indicators to drive and monitor improvement during the Perfect Depression Care Initiative in terms of the IOM's Six Aims (Table 2, page 195) to drive and monitor improvement. Consistent with the concept of pursuing "perfection," the Blues Busters team conceptualized goals in terms of "zero defects"—that is, eliminating suicides, not merely reducing them incrementally—and "complete satisfaction" of every patient every time, not merely appeasing some of them some of the time.

Defining the goal for effectiveness of care stirred controversy in our department. Some members of the Blues Busters team who embraced the "pursuing perfection" concept argued that truly effective care could only mean no suicides. Other team members challenged such a goal, viewing it as unrealistic for a network of approximately 200,000 members. The debate was finally resolved when the question was asked, "If zero is not the right number of suicides, then what number is? 1? 4? 40?" This debate was a milestone in the Blues Busters' development—a galva-

nizing issue that helped skeptics see the "logic" of striving for perfection and launched our initiative to transform depression care.

DATA ANALYSIS

We compared the incidence of suicide between the baseline period (the year 2000), the start-up period (the year 2001) and the follow-up interval (the years 2002–2005). Poisson regression was used for testing using each quarter of data for the three time periods.

We displayed the suicide data using a run chart, which plotted the running 12-month rate of suicide (Figure 2, page 197). The chart also shows the annual rate of suicide in the general population (~11 per 100,000 population, based upon the 2000 U.S. Census), as well as the reported rate in patients with a history of a mood disorder who are currently in remission (~4X–10X the rate in the general population). The rate of suicide in patients with an active mood disorder is estimated at 80–90X the rate in the general population, and the suicide rate in patients with a history of suicide attempts is 100X the rate in the general population.

DATA DISSEMINATION

From the start of the initiative, the Blues Busters team regularly reviewed results with leaders and managers of Behavioral Health Services as part of its ongoing strategic and operational performance review. The Blues Busters also designed a communication strategy that leveraged the department's array of established communication methods, ensuring that results, analyses, and lessons learned were widely shared with staff and other stakeholders.

Through Web sites and participation in national meetings and conferences, department leaders also shared the results of the Perfect Depression Care initiative with a broader health industry audience, including such groups as the American Psychiatric Association and the American Medical Group Association.

Performance Improvement Activities

Our first step in the Perfect Depression Care initiative was to use the IOM's Six Aims and Ten Rules to develop a clear vision of how each patient's care would be different and to drive bold and innovative thinking about optimal care. If

we aimed to eliminate suicide, we asked ourselves, what would it mean to offer a continuous healing relationship (Rule 1) or to anticipate needs (Rule 8)? We concluded that perfect depression care must be barrier free and that we must consistently provide for timely and accurate recognition of suicide risk. We found all ten rules useful as design specifications, and our care process changes indeed reflect them all.

We mapped our current care processes and identified four domains of activity that offered an opportunity for high-leverage changes to close the gap between current and perfect care—partnership with patients, clinical care (planned care model), access, and information flow. The components of these domains of activity are shown in Table 3 (page 198).

Throughout the initiative we maintained a focus on improving the entire system of behavioral health care not simply on managing a particular disease such as depression. Some needed improvements were obvious at once—the suicide prevention protocol, for example. Other improvements already under way now assumed new priority, such as establishing department-wide competency in Cognitive Behavior Therapy. Still others emerged over time, as team members examined the literature and benchmarked processes in high-performing organizations across the United States worth emulating—such as advanced access and the drop-in group medical appointment, each of which has only rarely been implemented in a behavioral health care setting.

In change management, whenever possible, we test changes on a small scale initially, through a pilot project involving one or a few clinicians. Depending on the pilot results, we may test the change again or begin implementation and spread. In addition, whenever possible, we build the internal capacity to make and sustain the change. For example, we equipped a small clinical team with the knowledge and skills to train and certify their colleagues in Cognitive Behavior Therapy. Finally, we have implemented a measurement system that is integrated into ongoing organizational performance review and reporting as a means of assessing the short- and long-term success of our changes.

Suicides per 100,000 Health Maintenance Organization Patients, 2000–2005

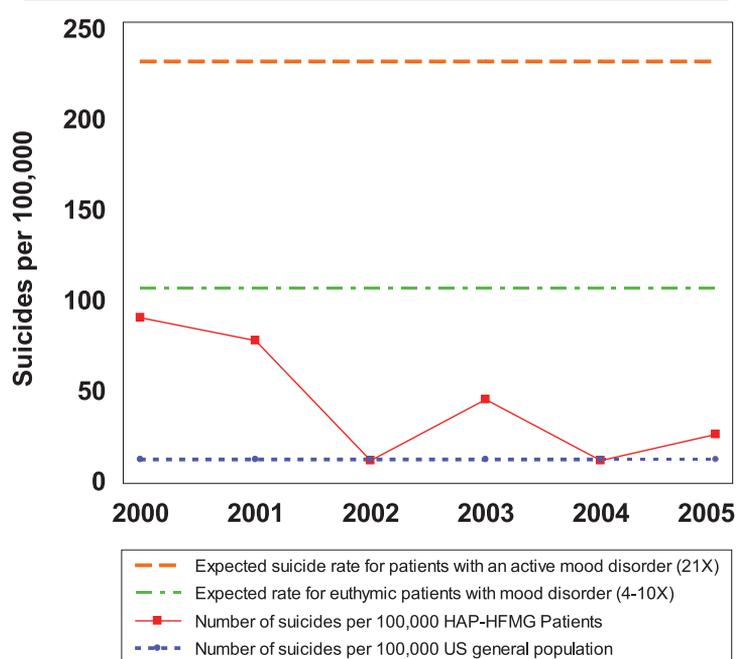


Figure 2. This run chart shows the running 12-month rate of suicide for each year since inception of the Perfect Depression Care Initiative. The annual rates of suicide are also shown for reference populations.

Results

As shown in Figure 2, the observed suicide rates ranged from 89 per 100,000 for baseline (2000), 77 per 100,000 for the start-up (2001), and 22 per 100,000 for the follow-up interval (the average rate for 2002–2005). The overall Poisson regression model (2 degrees of freedom, Chi-square test for a period effect) was statistically significant, $\chi^2 = 8.0, p = .018$. The difference in suicide rate between baseline and start-up years was not significant ($p = .768$), but the suicide rate for the follow-up period was significantly lower than that for both the baseline year ($p = .007$) and the start-up year ($p = .022$).

Discussion

During the period of 2001–2005 we designed, tested, and implemented multiple practice improvements, so it is difficult to determine which contributed most to our achievement. Yet we are confident that beyond our practice improvements, our determination to strive for

Table 3. Performance Improvement Activities in Four Domains

Partnership with Patients

- Established a consumer advisory panel to ensure the “voice of the customer” in care redesign
- Redesigned the treatment planning process, with input from the consumer advisory panel, to ensure that every patient has a voice in the design of his or her care working in an active partnership with clinicians

Clinical Care (Planned Care Model)

- Developed and implemented an evidence-based suicide prevention protocol, which has been embedded in the depression care guidelines.* The suicide prevention protocol stratified patients into three levels of risk, each of which required specific interventions. In every case, we focused heavily on the availability of weapons.
- Revised the depression care guidelines to ensure a systematic and evidenced-based approach to coordinating our array of somatic and psychotherapeutic treatments, including psychotherapy, psychopharmacology, and brain stimulation techniques such as electroconvulsive therapy
- Partnered with a therapy and research organization to establish and maintain departmentwide competency in Cognitive Behavior Therapy.
- Implemented standardized evidence-based clinical protocols to reduce the risk of falls (modified from the American Geriatrics Society and the American Medical Directors Association) and medication errors (modified from the Institute for Safe Medication Practices) in our inpatient facilities.

Access

- Implemented three access innovations: drop-in group medication appointments, advanced (same-day) access, and e-mail “visits.” Each outpatient site offers one or

more 90-minute drop-in group appointment(s) weekly, led by a psychiatrist and a social worker. This approach provides temporary additional access and group support on short notice.

- Physically reintegrated a number of our stand-alone behavioral health outpatient clinics into the medical group’s outpatient clinic buildings, to improve access and continuity of care.

Information Flow

- Created an electronic medical record for behavioral healthcare that complies with legal and institutional confidentiality policies, ensures that complete behavioral health information (including suicide risk) is immediately available to the behavioral health clinician at any site at which the patient is seen, and gives our group practice colleagues access to critical data for safe patient care through the health system’s electronic medical record for medical-surgical care
- Partnered with David Gustafson, Ph.D. and the CHES Consortium of the University of Wisconsin to develop and implement a state-of-the-art depression Web site for patients and family members that includes evidence-based information via patient videos and “ask the expert” forums as well as secure chat rooms for information and support
- Established secure e-mail communication for the growing number of patients who prefer this vehicle for at least some interactions with their behavioral health care provider.
- Partnered with the health system’s information technology department to develop an intranet to disseminate depression guidelines to all clinicians, as well as a patient registry and other electronic tools to improve the quality and efficiency of our care.

* Shown in Figure 2 (page 197).

perfection, rather than incremental goals, had a powerful effect on our results.

Studies such as ours, which rely on a time-series design, are susceptible to potential bias. The main threat to internal validity is “history,” that is, the concern that an observed change might be due to an event that is not the treatment of interest. In the context of our study, suicide rates might have reflected major shifts in the community in factors known to be associated with suicide, such as unemployment and socioeconomic downturn or declining family “connectedness” (for example, declining marriage rates). We are compiling statistics for our primary service

area to formally evaluate such time trends. A preliminary analyses revealed relatively stable marriage rates (~44%-59%, depending upon county) but unemployment has increased dramatically (from 3.2% in 2000 to 7.3% in 2003). Yet the actual suicide rate in our state and tri-county service area remained relatively stable from 1999 to 2003 (~9.8 to 10.0 per 100,000).

A second threat to validity arises due to the potential for maturation-selection bias. In the context of this study, suicide rates could have changed if characteristics of our patient population (the denominator population), such as age, sex, and race-ethnicity, were changing over time in a

manner likely to affect suicide rates. For example, suicide is more common among men, the elderly, and whites and Native Americans. We are evaluating the extent to which such characteristics may have changed over time in our patients. Preliminary analyses have revealed no clear changes in age, sex, and race-ethnicity.

The encouraging results of the Perfect Depression Care Initiative suggest that the Chasm Report can be a highly effective model for achieving and sustaining breakthrough quality improvement in mental health care.

Energized by this success, we remain focused on driving our suicide rate down to zero, and we are spreading our success and lessons learned both within and beyond our department. The Perfect Depression Care initiative is the prototype for a comprehensive redesign of behavioral health care across the psychiatry department. Work is under way to “perfect” the care of persons with anxiety or psychotic disorders, and similar care systems are being developed for violence prevention and medication safety, with a particular focus on “perfecting” communication between providers. Essentially, pursuing perfection is no longer a project or initiative but a principle driving force embedded in the fabric of our care.

Beyond the psychiatry department, we are also partnering with our health system and community. We have implemented an initiative to spread “perfect depression care” to the primary and specialty medical care settings of our health system. We are also collaborating with the insurance division of our health system to develop a depression care management product designed to provide major employers (in particular the automotive manufacturers in Detroit) with a system of depression care that will improve their employee productivity and lower health care costs. We have received funding to leverage information technology to help the State of Michigan develop and implement evidence-based guidelines for the care of persons with mood disorders throughout the state. Finally, we are consulting with

numerous mental health care providers, insurers, and professional organizations throughout the United States to support their efforts to improve their behavioral health care services.

Summary and Conclusions

Striving for perfect depression care set the Blues Busters and our entire department on a transformational journey. “Perfect” care required audacious goals—goals that could only be accomplished by challenging the most basic assumptions. Usual care and incremental approaches were taken off the table. Although the business case for pursuing perfection is complex, we found it is possible to dramatically improve care and financial performance at the same time. This approach is not only economically viable but is readily applicable to other behavioral health care delivery systems. ¹

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aged 6 to 17 years who were taking an atypical antipsychotic and 15 000 children taking albuterol but no antipsychotic drugs. Patients with diabetes were excluded from both groups. The study found that glucose screening was low in both groups, with 31.6% of the patients taking antipsychotics receiving such screening compared with 12.6% of controls. Only 13.4% of the patients treated with antipsychotic drugs received lipid testing compared with 3.1% of controls. Further analysis revealed that children with multiple psychiatric diagnoses and those who used more medical services were most likely to be screened.

The results suggest that many physicians are falling short of the level of monitoring recommended in a 2004 consensus statement from several professional groups, including the American Psychiatric Association and the American Diabetes Association. Morrato said that clinicians treating pediatric patients, often primary care physicians, may be less aware of these guidelines, which apply to all age groups, and that there may also be systemic barriers to screening.

Correll called for even more aggressive monitoring for metabolic changes in pediatric patients taking atypical antipsychotics than that recommended in

2004. He said that physicians should monitor these patients' weight and height at each visit, and should do a fasting glucose test when initiating therapy, 3 months later, and every 6 months thereafter.

"We are between a rock and a hard place because these children and adolescents are brought to us because they are severely ill," he said. "They can't function, so we need to give them effective medications, but we also need to make sure they have the least possible side effects. For that, monitoring and management of these abnormalities is crucial." □

Depression Care Effort Brings Dramatic Drop in Large HMO Population's Suicide Rate

Tracy Hampton, PhD

WHILE PHYSICIANS AND OTHER health care workers may not be able to predict which of their patients will attempt suicide, they can implement preventive strategies that markedly lower the risk of such tragedies. Now, one pioneering program has demonstrated the importance of pursuing 2 key approaches at once: carefully assessing patients for risk of suicide and adopting measures to reduce the likelihood that a patient will attempt suicide.

The example comes from a quality-improvement initiative that succeeded in substantially bringing down the rate of suicide in a population of about 200 000 members of a large health maintenance organization (HMO). Through the second quarter of last year, the Perfect Depression Care program of the Behavioral Health Services (BHS) division of the Henry Ford Health System resulted in 9 consecutive quarters without any suicides, a dramatic contrast to the annual rate of 89 suicides per 100 000 members at baseline and approximately 230 suicides per 100 000 individuals expected in a patient population. The work has won

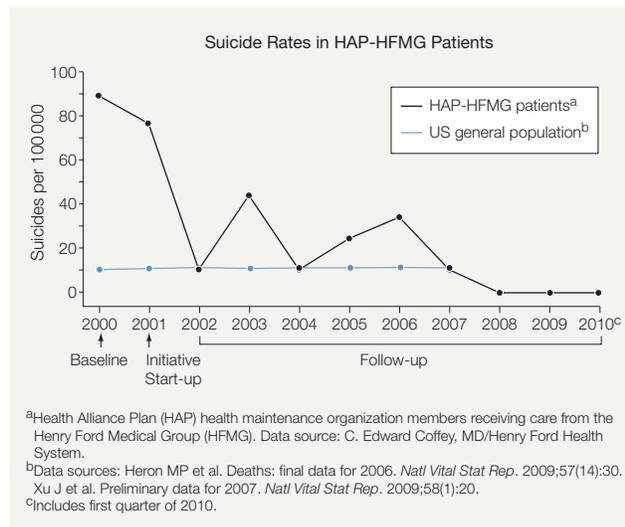
several awards, including the Joint Commission's Earnest Amory Codman Award and the Gold Achievement Award from the American Psychiatric Association.

"I believe we have a model that is applicable to most health care settings and that could dramatically improve the care of patients with depression and other major mental disorders that raise the risk of suicide," said neuropsychiatrist C. Edward Coffey, MD, Henry Ford

Health System vice president and CEO of BHS, a large integrated mental health and substance abuse system that includes 2 inpatient hospitals and 10 clinics serving southeastern Michigan and adjacent states.

ZERO SUICIDES

The Perfect Depression Care Initiative was one of 12 national demonstration projects (and the only mental health



A quality-improvement initiative succeeded in curbing the rate of suicide in a population of about 200 000 members of a large health maintenance organization.



proposal) selected in 2001 by the Robert Wood Johnson Foundation to demonstrate that a report by the Institute of Medicine (IOM) could serve as a roadmap for health care redesign. The IOM report, *Crossing the Quality Chasm: A New Health System for the 21st Century* (<http://www.iom.edu/Reports/2001/Crossing-the-Quality-Chasm-A-New-Health-System-for-the-21st-Century.aspx>), praised advances in medical science in the United States, but it called for fundamental change in the US health care delivery system and offered a strategy for building a stronger health system.

The IOM report identified depression and anxiety disorders on a list of priority conditions for immediate national attention and improvement. The goal of Henry Ford's Perfect Depression Care initiative was to completely redesign depression care delivery using the 6 aims for health care improvement from the report: safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity. Safety improvements strive to avoid injuries patients receive as a result of their care; effectiveness involves providing services based on scientific knowledge while avoiding underuse and overuse; patient-centered care considers individual patient preferences, needs, and values and ensures that patient values guide all clinical decisions; timely care reduces delays; efficient care avoids waste; and equitable care does not vary in quality because of personal characteristics.

As the Perfect Depression Care initiative focused on these aims, it became apparent that one goal trumped all others for driving breakthrough improvements in care: to reduce the number of suicides to zero in patients seen in both inpatient and outpatient facilities. "If we were to provide perfect depression care, nobody would kill themselves," said Coffey. "Such a 'perfection' goal was very controversial at the start, but if zero isn't the right number [of suicides], what is?"

The BHS implemented a number of tactics to achieve its audacious goal. "Once we committed to zero suicides, it forced us to commit to things we'd

never think of doing," said Coffey. One example was to address the availability of weapons. "We got very serious about it and insisted that patients provide us with an inventory of weapons in their home, and we encouraged them to get rid of them," he said.

Each patient seen through the BHS is first assessed and stratified on the basis of suicide risk: acute, moderate, or low. "Everyone is at risk. It's just a matter of whether it's acute or whether it requires attention but isn't emergent," said Coffey. A patient considered to be at high risk undergoes a psychiatric evaluation the same day. A patient at low risk is evaluated within 7 days. Group sessions for patients also allow individuals to connect and offer support to one another, not unlike the supportive relationships between sponsors and "sponsees" in 12-step programs.

HOW IT WORKS

For each patient, staff members develop a clear vision of how that patient's care will change, partnering with patients to ensure that the care they receive meets their needs. Those involved in a patient's care also design and test strategies for improvements in areas such as the patient's access to care, and they implement relevant and up-to-date measures of care quality. Finally, they communicate with each other and constantly work to improve patient care by sharing results, analyses, and lessons learned with staff and other stakeholders, such as leaders throughout the health system and members of the initiative's Community Advisory Group (which includes patients, their family members, and other community leaders and advocates with an interest in mental health).

All patients have access to a depression Web site maintained by the program and are able to communicate with behavioral clinicians via e-mail. Each outpatient site also offers one or more drop-in group appointments each week that are led by a psychiatrist and a social worker.

All health clinicians within the BHS have access to patients' electronic medi-

cal records. Each year, all behavioral health care staff at the BHS complete a course on suicide risk and prevention and must score 100% on the follow-up test or receive additional education. The BHS also instituted team members called physician extenders, who support patients and call them periodically to see how they are doing. In addition, an Intranet site gives clinicians access to depression guidelines, the patient registry, and electronic tools to improve the quality and efficiency of care.

Within the first 4-year follow-up interval, the average annual rate of suicide in the BHS patient population dropped 75%, from approximately 89 per 100 000 in 2000 to approximately 22 per 100 000 (Coffey CE. *Jt Comm J Qual Patient Saf.* 2007;33[4]:193-199). More recently, there has not been a suicide in the HMO population in more than 2 years.

"They've really carried this initiative forward even in the highest-risk patients, who are very vulnerable to suicide," said Donald Berwick, MD, MPP, the president and CEO of the not-for-profit Institute for Healthcare Improvement and professor of health policy and management at the Harvard Medical School in Boston. "It's quite remarkable that they've had no suicides, particularly in this group," added Berwick, who was nominated in late March by President Barack Obama to head the Centers for Medicare & Medicaid Services.

The success of the initiative demonstrates, said Coffey, "that dramatic—indeed, unimaginable—improvements in mental health care quality are possible, and that the IOM's *Chasm* report can indeed serve as a very useful model for mental health care redesign." He added that because the BHS team (which calls itself the "Blues Busters") designed, tested, and implemented multiple practice improvements over several years, it is difficult to determine which strategies contributed most to the group's achievements. However, the determination to strive for perfection, rather than incremental goals, had a particularly powerful effect, he said. Principles behind the Perfect Depres-



sion Care initiative are now being applied to the care of BHS patients with other psychiatric conditions, such as anxiety and psychotic disorders.

Although some patients are reluctant to talk about suicide attempts, Coffey noted that his team does hear consistent themes from patients and their families. "Patients have come to us and said, 'It's a good idea that you had me take the gun out of my house; some nights I'd sleep with it on the pillow beside me.'" These sorts of comments indicate that suicide is often impulsive and that imposing even a short delay can allow the impulse to pass, said Coffey.

A MODEL PROGRAM

The initiative's success may spur others to consider implementing similar measures. "People are searching for ways to adapt modern improvement methods to behavioral health, not just

classical medical care," said Berwick. "Behavioral health is sometimes thought to be more elusive, but Dr Coffey and his team successfully adapted a systematic model, based on the IOM report, to behavioral health."

J. John Mann, MD, vice chair for research in the department of psychiatry at Columbia University, in New York City, noted that the initiative's results support several previous studies in Sweden, Hungary, and Germany that found that enhanced diagnosis and treatment of major depression can substantially reduce rates of suicide and suicide attempts. "This study now shows a similar strategy can also work in a community in the United States and helps make the case that such approaches should be more widespread as part of a national suicide prevention effort," he said.

Efforts like the Perfect Depression Care initiative are important because

depression is the leading mental disorder associated with suicide risk, said Morton Silverman, MD, a clinical associate professor of psychiatry at the University of Chicago. He noted that the initiative's results are "quite impressive."

Coffey said that a program like this can be difficult to emulate because it takes considerable commitment and a unique culture. Still, despite the challenges in implementing what he calls a "zero defect" program, Coffey believes the BHS approach could be applied to a wide range of medical issues, such as medication safety, violence prevention, and infection control. "You have to be able to measure the issue and strive to pursue perfection," he said. Berwick agreed, noting that similar success will require leadership's commitment as well as an atmosphere that encourages innovation and aggressive improvement. □

Integrated Care Key for Patients With Both Addiction and Mental Illness

Bridget M. Kuehn

DESPITE A GROWING BODY OF EVIDENCE that integrated care is important in treating individuals with addiction and comorbid psychiatric disorders, such care remains in short supply. But efforts by scientists and policy makers aim to improve access to such treatment.

Substance abuse disorders often occur in patients with other psychiatric illnesses, yet few such individuals receive treatment for their conditions despite the serious health and other consequences that often result. An estimated 17.5 million adults had a serious mental illness in 2002 based on the National Survey on Drug Use and Health (previously called the National Household Survey on Drug Abuse), a nationally representative survey of more

than 68 000 US individuals. About 4 million (23%) were also dependent on or abusing alcohol or illicit drugs (<http://www.oas.samhsa.gov/2k4/coOccurring/coOccurring.htm>). But more than half of these individuals received no treatment for either condition, about one-third received treatment only for their mental illness, 2% received only specialty substance abuse treatment, and just 12% received care for both conditions.

COMMON VULNERABILITIES

There are a number of potential explanations why substance abuse and other types of psychiatric illness frequently occur together, explained Nora D. Volkow, MD, director of the National Institute on Drug Abuse (NIDA) in an interview. She explained that there may be common genetic or environmental

factors that lead to both conditions. Additionally, because substance abuse and other mental illnesses affect overlapping brain circuits, brain changes related to one disorder may lead to another. There may also be complex interactions between such factors.

One environmental factor that has been strongly associated with the development of both addiction and other mental illnesses is exposure to stress during childhood or adolescence. For example, a child raised in a household in which there is parental neglect, physical abuse, or sexual abuse has an elevated risk of developing a substance use disorder, depression, or an anxiety disorder.

"Which of these trajectories you take when you get exposed to these environmental stimuli is a function of genetic vulnerability factors and also